METHOD AND DEVICE FOR STABILIZING OPERATION POINT AND OPTICAL OUTPUT OF EXTERNAL OPTICAL MODULATOR

ABSTRACT OF THE DISCLOSURE

The purpose of present invention is to provide the method and device for stabilizing the operation point and optical output of external optical modulator, which can control the wave pattern deformation of electrical signal array and set up stably the operation point of modulation curve of optical modulator and the optical output from optical modulator, even in case there is an optical output variation of the light source itself or a transmission factor variation in optical modulator.

The present invention is the method and device for stabilizing the operation point and optical output of external optical modulator with light source 12, external optical modulator 2 modulating the light from the light source, optical detector 14 detecting the output-light from the said external optical modulator and the means of regulating direct current bias that regulates the direct current bias determining the operation point of modulation curve of the said external optical modulator, according to the output of the said optical detector, wherein;

low-frequency signal 69, which is frequency below the lower limit of the signal frequency band of input signal inputted to the said external optical modulator, is superimposed onto the said direct current bias, and the low-frequency component included in the output of the said optical detector is extracted, and the output of the said low-frequency component is normalized on the basis of the said low-frequency signal, and the output-light of light source is controlled in accordance with the said normalized low-frequency component.

(Representative figure: Figure 1)